This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A method for generating backup files in a computer system, comprising:

generating a full backup file corresponding to a first time for a set of objects in the computer system;

generating at least one incremental file for said set of objects after said first time, wherein each of said at least one incremental file is associated with the set of objects;

identifying a target object within said set of objects for the generation of cumulative backup files; and

generating at least one cumulative backup file corresponding to a second time, after said first time, for said target object, wherein said generating of said at least one cumulative backup file is performed off-line, wherein said at least one cumulative backup file corresponding to a second time for said target object allows for the restoration of the target object without the restoration of the set of objects.

2. (Original) A method for generating backup files according to claim 1, wherein said generating of said at least one cumulative backup file includes analyzing at least one incremental file generated between said first and second time.

3. (Original) A method for generating backup files according to claim 2, wherein said analyzing of said at least one incremental file is performed in reverse chronological order, starting from said second time.

4. (Original) A method for generating backup files according to claim 1, further comprising restoring said target object to said second time by processing said full backup file and said at least one cumulative backup file.

5. (Original) A method for generating backup files according to claim 1, further comprising restoring said target object to a third time later than said second time by processing a full backup file, said at least one cumulative backup file and any incremental backup files generated between said second time and said third time.

6. (Original) A method for generating backup files according to claim 1, wherein said identifying includes identifying a related subset of files as said target object for a cumulative backup file.

7. (Original) A method for generating backup files according to claim 1, wherein said identifying includes identifying a volume as said target object for a cumulative backup file.

8. (Original) A method for generating backup files according to claim 1, wherein said identifying includes identifying a directory as said target object for a cumulative backup file.

9. (Original) A method for generating backup files according to claim 1, wherein a user identifies the target object.

10. (Original) A method for generating backup files according to claim 1, further comprising monitoring and analyzing restore operations in said computer system, wherein said target object is identified in response to said monitoring and analyzing.

11. (Original) A method for generating backup files according to claim 1, wherein said identifying of said target object is designed to meet a condition of bounded restore time for said target object.

12. (Original) A method for generating backup files according to claim 1, further comprising controlling the frequency of generating at least one of a full, incremental and cumulative backup.

13. (Original) A computer-readable medium having computer-executable instructions for instructing a client computer to perform the method of claim 1.

14. (Previously Presented) A data structure stored in a computer readable medium for representing cumulative backup information for a target object generated according to the method of claim 1, comprising:

storage block mappings for said target object; and

cumulative backup data representative of change of the target object relative to a full

backup wherein said data representative of said change is stored in the format of Microsoft tape format.

15. (Currently Amended) A method for generating backup files in a computer system, comprising:

generating a full backup file corresponding to a first time for a set of objects in the computer system;

generating at least one incremental file for said set of objects after said first time, wherein each of said at least one incremental file is associated with the set of objects;

identifying a target object within said set of objects for the generation of cumulative backup files; and

generating at least one cumulative backup file corresponding to a second time, after said first time, for said target object, wherein said generating of said at least one cumulative backup file includes analyzing at least one incremental file generated between said first and second time, wherein said at least one cumulative backup file corresponding to a second time for said target object allows for the restoration of the target object without the restoration of the set of objects.

16. (Original) A method for generating backup files according to claim 15, wherein said analyzing of said at least one incremental file is performed in reverse chronological order, starting from said second time.

17. (Original) A method for generating backup files according to claim 15, wherein said generating of said at least one cumulative backup file is performed off-line.

18. (Original) A method for generating backup files according to claim 15, further comprising monitoring and analyzing restore operations in said computer system, wherein said target object is identified in response to said monitoring and analyzing.

19. (Original) A method for generating backup files according to claim 15, wherein said identifying of said target object is designed to meet a condition of bounded restore time for said target object.

20. (Original) A method for generating backup files according to claim 15, further comprising controlling the frequency of generating at least one of a full, incremental and cumulative backup.

21. (Original) A computer-readable medium having computer-executable instructions for instructing a client computer to perform the method of claim 15.

22. (Currently Amended) A computer system, comprising:

a plurality of servers having at least one connection to a communications network; and

a plurality of storage components for the storage of backup information for a plurality of target objects in the form of full, incremental and cumulative backup information, wherein the full and incremental backup information is associated with the collection of said plurality of target objects;

wherein said cumulative backup information is generated off-line for a target object of the plurality of target objects based on the full and incremental backup information associated with the collection of said plurality of target objects, and wherein said storage components are accessible over said at least one connection via said plurality of servers, further wherein said cumulative backup information for a target object allows for the restoration of the target object without the restoration of the collection of said plurality of target objects.

23. (Previously Presented) A computer system according to claim 22, wherein the target object is reconstructed by processing at least one cumulative backup file of the cumulative backup information associated with said target object and a full backup file associated with the collection of said plurality of target objects.

24. (Cancelled)

25. (Previously Presented) A computer system according to claim 22, wherein said plurality of storage components store backup information for said target object according to a user specification as to which subset of files comprises said target object.

26. (Previously Presented) A computer system according to claim 22, wherein said plurality of storage components store backup information for a volume as said target object.

27. (Previously Presented) A computer system according to claim 22, wherein said plurality of storage components store backup information for a directory as said target object.

28. (Original) A computer system according to claim 22, wherein at least one of said plurality of servers generates said backup information in response to monitoring and analyzing an inefficiency of a system restore operation.

29. (Previously Presented) A computer system according to claim 22, wherein the generation of backup information is designed to meet a condition of bounded restore time for the target object.

30. (Previously Presented) A computer system according to claim 22, wherein the generation of a cumulative backup file includes the analysis of at least one incremental file of the incremental backup information generated for the plurality of target objects.

31. (Previously Presented) A computer system according to claim 30, wherein said analysis of said at least one incremental file is performed in reverse chronological order.

32. (Currently Amended) A computer system, comprising:

a plurality of servers having at least one connection to a communications network; and

a plurality of storage components for the storage of backup information for a plurality of target objects in the form of full, incremental and cumulative backup information, wherein the full and incremental backup information is associated with the collection of said plurality of target objects;

wherein said cumulative backup information is generated off-line for a target object of the plurality of target objects based on an analysis of the full and incremental backup information associated with the collection of said plurality of target objects, and wherein said storage components are accessible over said at least one connection via said plurality of servers, <u>further wherein said cumulative backup information for a target object allows for the</u>

restoration of the target object without the restoration of the collection of said plurality target objects

33. (Previously Presented) A computer system according to claim 32, wherein said analysis includes an analysis of at least one incremental file of the incremental backup information performed in reverse chronological order.

34. (Cancelled)